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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,586	11/21/2003	Hiroynki Okuhira	ION-0218	9398
23353	7590	06/09/2006		
RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036				
			EXAMINER BUTTNER, DAVID J	
			ART UNIT 1712	PAPER NUMBER

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Cw

Office Action Summary	Application No. 10/717,586	Applicant(s) OKUHIRA ET AL.	
	Examiner David Buttner	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8,9,11,12,14 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9,11,12,14 and 16-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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The lined out references on the 1449 form were not accompanied by any English explanation.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8,9,11,12,14 and 16-24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Requiring the ketone, ketimine, amine and water to be in an equilibrium while in the presence of an epoxy resin appears to be impossible. Applicant's own examples show that curing begins upon mixing the epoxy with the other components. The continual reaction of the diamine with epoxy prevents any true "equilibrium".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim requires the main part (presumably >50%) of the curable resin to be other than the urethane + epoxy. This directly contradicts claim 9's requirement that the main part (presumably >50%) is urethane + epoxy.

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Claims 8,11,17,19,21 and 23 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McFadden '819.

McFadden claims the combination of amine, ketone and epoxy resin. The amine and ketone are said to be in equilibrium with ketimine and water (col 5 line 43-45). Note that product by process claims 17,19 and 21 are met by the reference because the same equilibrium $A + B \leftarrow \rightarrow C + D$ results regardless of whether $A + B$ was initially combined or $C + D$ was initially combined etc (see MPEP2113). Regarding claim 23's ratio of ketimine to amine, the examiner assumes the ratio is inherently met by the reference because both McFadden and applicant use the material for the same purpose (curing epoxy coatings) and that both applicant and McFadden consider the four component curing component to be in "equilibrium" and further applicant's ratio is broad enough to cover most numerical possibilities (see MPEP 2112).

Claims 8,9,11,14 and 17-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Charves '497 in view of McFadden '819.

Charves exemplifies coatings of epoxy resin, isocyanate functional urethane and a curing component having ketimine in MEK. Charves recognizes (col 3 line 38-50) that the diamine + ketone : ketimine + water reaction is reversible but doesn't explicitly state all four materials are present in an equilibrium state.

McFadden teaches such a four component curing package in equilibrium allows for a stable/gel free coating composition while in bulk form (col 5 line 36-52). When coated on a substrate, the resulting high surface area encourages evaporation of the

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ketone. This drives the equilibrium to the diamine + ketone side, providing the diamine curing agent.

It would have been obvious to ensure the curing component of Charves is in a four member equilibrium for the advantages explained by McFadden. Note that product by process claims 17-24 are met by the reference because the same equilibrium $A + B \rightleftharpoons C + D$ results regardless of whether $A + B$ was initially combined or $C + D$ was initially combined etc (see MPEP2113).

Claims 8,9,11,12,14, and 16-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Okuhira '333 in view of McFadden '819.

Okuhira exemplifies (table 1) compositions of silyl functional polymer (applicant's "other" prepolymer), isocyanate functional urethane and ketimine. Epoxy resins may be included (col 17 line 53). The ketimine is not said to be in an equilibrium balance with its forming ingredients (ie diamine + ketone) and by product (ie water).

McFadden teaches such a four component curing package in equilibrium allows for a stable/gel free coating composition while in bulk form (col 5 line 36-52). When coated on a substrate, the resulting high surface area encourages evaporation of the ketone. This drives the equilibrium to the diamine + ketone side, providing the diamine curing agent.

It would have been obvious to ensure the curing component of Okuhira is in a four member equilibrium for the advantages explained by McFadden. Note that product by process claims 17-24 are met by the reference because the same equilibrium $A + B$

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← → C +D results regardless of whether A +B was initially combined or C + D was initially combined etc (see MPEP2113).

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Requiring the "equilibrium" is a new issue necessitating the new rejections.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone

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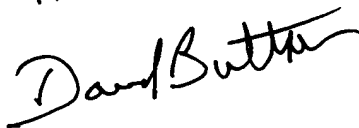
number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Buttner

6/5/06

DAVID J. BUTTNER
PRIMARY EXAMINER

A handwritten signature in black ink that reads "David Buttner". The signature is written in a cursive style with a large, stylized "D" and "B".